GenCore version 4.5

OM nucleic - nucleic search, using sw model

Run on: March 9, 2002, 01:06:57 ; Search time 755.06 Seconds
(without alignments)
28.386 Million cell updates/sec

Title: US-09-851-670-6
Perfect score: 25
Sequence: 1 ccctaggccccaccagtctactgct 25

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 930621 seqs, 428662619 residues

Total number of hits satisfying chosen parameters: 1026190

Minimum DB seq length: 0
Maximum DB seq length: 60

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : N_Geneseq_1101:*
1: /SIDS2/gcgdata/geneseq/geneseqn/NA1980.DAT:*
2: /SIDS2/gcgdata/geneseq/geneseqn/NA1981.DAT:*
3: /SIDS2/gcgdata/geneseq/geneseqn/NA1982.DAT:*
4: /SIDS2/gcgdata/geneseq/geneseqn/NA1983.DAT:*
5: /SIDS2/gcgdata/geneseq/geneseqn/NA1984.DAT:*
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7: /SIDS2/gcgdata/geneseq/geneseqn/NA1986.DAT:*
8: /SIDS2/gcgdata/geneseq/geneseqn/NA1987.DAT:*
9: /SIDS2/gcgdata/geneseq/geneseqn/NA1988.DAT:*
10: /SIDS2/gcgdata/geneseq/geneseqn/NA1989.DAT:*
11: /SIDS2/gcgdata/geneseq/geneseqn/NA1990.DAT:*
12: /SIDS2/gcgdata/geneseq/geneseqn/NA1991.DAT:*
13: /SIDS2/gcgdata/geneseq/geneseqn/NA1992.DAT:*
14: /SIDS2/gcgdata/geneseq/geneseqn/NA1993.DAT:*
15: /SIDS2/gcgdata/geneseq/geneseqn/NA1994.DAT:*
16: /SIDS2/gcgdata/geneseq/geneseqn/NA1995.DAT:*
17: /SIDS2/gcgdata/geneseq/geneseqn/NA1996.DAT:*
18: /SIDS2/gcgdata/geneseq/geneseqn/NA1997.DAT:*
19: /SIDS2/gcgdata/geneseq/geneseqn/NA1998.DAT:*
20: /SIDS2/gcgdata/geneseq/geneseqn/NA1999.DAT:*
21: /SIDS2/gcgdata/geneseq/geneseqn/NA2000.DAT:*
22: /SIDS2/gcgdata/geneseq/geneseqn/NA2001.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Result No.	Score	% Query Match	Length	DB	ID	Description
	1	18	72.0	18	22	AAF79646	Human Akt-3 antise
c	2	16	64.0	25	21	AAA62444	Human Akt-3 cDNA 3
	3	15.2	60.8	20	16	AAQ97960	PNA oligomer targe
	4	15.2	60.8	20	16	AAQ84237	PKC-epsilon coding
	5	15.2	60.8	20	20	AAZ27354	Human protein kina
	6	15.2	60.8	20	20	AAX78612	Human PKC-epsilon
	7	15.2	60.8	20	20	AAX83704	Human protein kina
	8	15.2	60.8	20	20	AAX22650	Human protein kina
	9	15.2	60.8	20	20	AAX19215	Human PKC-epsilon
c	10	15.2	60.8	36	16	AAT53201	Mouse ICAM hammerh
c	11	15.2	60.8	36	16	AAT52969	Mouse ICAM hammerh
c	12	15	60.0	32	22	AAH25021	PCR primer used to
c	13	15	60.0	51	22	AAH38540	Human SNP flanking
	14	14.8	59.2	20	20	AAZ27368	Human protein kina
	15	14.8	59.2	20	20	AAX78626	Human PKC-epsilon
	16	14.8	59.2	20	20	AAX83747	Human protein kina
	17	14.8	59.2	20	20	AAX22664	Human protein kina
	18	14.8	59.2	20	20	AAX19229	Human PKC-epsilon
c	19	14.6	58.4	38	17	AAX64355	Rabbit stromelysin
c	20	14.4	57.6	51	15	AAQ67302	PCR primer for pre
c	21	14.2	56.8	36	16	AAT54382	Human IL-5 hammerh
c	22	14.2	56.8	54	15	AAQ67301	PCR primer for pre
	23	14	56.0	18	22	AAF79647	Human Akt-3 antise
c	24	14	56.0	26	22	AAF17379	Information carryi
	25	14	56.0	28	18	AAT76384	Human tumour necro
	26	14	56.0	28	20	AAX54533	Tumour necrosis fa
	27	14	56.0	28	21	AAF20099	Human tumour necro
	28	14	56.0	28	21	AAA33977	Low adenosine anti
	29	14	56.0	51	22	AAH89369	Human nuclease cod
c	30	14	56.0	57	15	AAQ67295	PCR primer HCDRD5
c	31	14	56.0	57	15	AAQ70503	Mutagenic primer p
c	32	14	56.0	57	17	AAT48542	Primer used for pr
	33	13.8	55.2	18	20	AAZ18204	Serine threonine k
c	34	13.8	55.2	27	22	AAH38539	SNP specific SNPE
c	35	13.6	54.4	20	19	AAV21330	Chimeric Ig germli
c	36	13.6	54.4	24	22	AAS11892	Monoscaffold antib
	37	13.6	54.4	35	19	AAV54220	Primer KC101 used
	38	13.6	54.4	35	20	AAX55302	Soluble sc-TCR fus
c	39	13.6	54.4	36	16	AAT55434	Human relA hammerh
c	40	13.6	54.4	36	16	AAT53290	Mouse ICAM hammerh
c	41	13.6	54.4	36	16	AAT52939	Human ICAM hammerh
c	42	13.6	54.4	36	17	AAX65918	Human B7-2 hammerh
c	43	13.6	54.4	36	17	AAX65032	Human B7-1 hammerh
c	44	13.6	54.4	36	17	AAT30349	Human YAP WW domai
c	45	13.6	54.4	38	17	AAX64090	Rabbit stromelysin

ALIGNMENTS

RESULT 1
AAF79646
ID AAF79646 standard; DNA; 18 BP.
XX
AC AAF79646;
XX
DT 29-MAY-2001 (first entry)
XX
DE Human Akt-3 antisense oligonucleotide, SEQ ID NO: 54.
XX
KW Human; Akt-3; protein kinase; cytostatic; antiinflammatory; infection;
KW antisense therapy; inflammation; tumour; ss.
XX
OS Homo sapiens.
XX
PN US6187586-B1
XX
PD 13-FEB-2001.
XX
PF 29-DEC-1999; 99US-0474922.
XX
PR 29-DEC-1999; 99US-0474922.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Monia BP, Cowsert LM, Roth RA;
XX
DR WPI; 2001-264979/27.
XX
PT New antisense compounds targeting nucleic acids encoding human Akt-3
PT useful for treating a disease or condition associated with Akt-3
PT expression, or in preventing or delaying inflammation or tumor
PT formation -
XX

PS Claim 1; Column 39; 37pp; English.
XX
CC The present sequence is one of a number of antisense compounds of up to
CC 30 nucleobases in length targeted to a nucleic acid encoding human Akt-3.
CC The antisense compounds are useful for inhibiting the expression of human
CC Akt-3 in human cells or tissues. They are also useful for modulating the
CC expression of Akt-3, and for treating a human or an animal suspected of
CC having, or being prone to, a disease or condition associated with Akt-3
CC expression. The antisense compounds may also be used as research
CC reagents, in kits and in diagnostics, e.g. to elucidate the function of a
CC particular gene or to distinguish between functions of various members of
CC a biological pathway; and as a prophylactic, e.g. to prevent or delay
CC infection, inflammation or tumour formation.
XX
SQ Sequence 18 BP; 4 A; 8 C; 3 G; 3 T; 0 other;

Query Match 72.0%; Score 18; DB 22; Length 18;
Best Local Similarity 100.0%; Pred. No. 36;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 3 ctaggccccaccagtcta 20
||||||||||||||||||
Db 1 ctaggccccaccagtcta 18

RESULT 2
AAA62444/c
ID AAA62444 standard; DNA; 25 BP.
XX
AC AAA62444;
XX
DT 13-NOV-2000 (first entry)
XX
DE Human Akt-3 cDNA 3'RACE sense primer Akt-3sp4.
XX
KW Human; Akt-3; protein kinase B; PKB; serine/threonine kinase; cytostatic;
KW apoptosis stimulator; cancer; rapid amplification of cDNA ends; RACE;
KW chromosome 1q43-44; PCR primer; ss.
XX
OS Homo sapiens.
XX
PN WO200037613-A2.
XX
PD 29-JUN-2000.
XX
PF 17-DEC-1999; 99WO-GB04311.
XX
PR 22-DEC-1998; 98GB-0028375.
XX
PA (JANC) JANSSEN PHARM NV.
XX
PI Masure SLJ, Richardson A;
XX
DR WPI; 2000-498840/44.
XX
PT New human serine/threonine kinase protein and the polynucleotide
PT encoding the protein, useful for preparing a medicament for treating
PT disorders associated with human serine/threonine kinase protein
PT activity, especially cancer -
XX
PS Disclosure; Page 20; 61pp; English.
XX
CC The present sequence is a primer used to isolate human Akt-3 cDNA from
CC human brain cDNA by 3' rapid amplification of cDNA ends (3' RACE). Akt-3
CC is a third human isoform of Akt, which is also known as protein kinase B
CC (PKB) or "related to A and C protein kinase" (RAC-PK). It is located on
CC human chromosome 1, region q43-q44. The present primer was used in the
CC second round of 3' RACE. The sequence is based on the product of the
CC first round, which was performed using primers based on a human
CC hippocampal EST sequence that showed high similarity to the rat
CC RAC-PKgamma sequence. Primers based on the product of the second round of
CC 3' RACE were then used to amplify the complete coding sequence of Akt-3
CC from human hippocampal cDNA. Akt can inhibit apoptosis induced by
CC detachment from the extracellular matrix. The Akt-3 nucleic acid molecule
CC and protein may be used as medicaments for treating cancer. Agents which
CC influence the activity of Akt-3 protein, and so stimulate apoptosis, may
CC also be used to treat diseases associated with Akt-3.
XX
SQ Sequence 25 BP; 5 A; 5 C; 10 G; 5 T; 0 other;

Query Match 64.0%; Score 16; DB 21; Length 25;
Best Local Similarity 100.0%; Pred. No. 2.8e+02;
Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 10 ccaccagtctactgct 25
||||||||||||||||
Db 25 CCACCAGTCTACTGCT 10

RESULT 3
AAQ97960
ID AAQ97960 standard; DNA; 20 BP.
XX
AC AAQ97960;
XX
DT 18-OCT-1995 (first entry)
XX
DE PNA oligomer targetting coding region of PKC-epsilon.
XX
KW Peptide nucleic acid; PNA; PKC-alpha; protein kinase C; ss;
KW cell proliferation; cell differentiation; isozyme; antisense;
KW triple helix; cancer; psoriasis; inflammation.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT misc_feature 1..20
FT /*tag= a
FT /note= "at least one (and preferably all) of
FT the backbone subunits are composed of N-acetyl
FT N-(2-aminoethyl)glycine peptide residues, the
FT nucleobase being attached covalently to the
FT acetyl group and the peptide linkage being
FT formed by condensation of the glycine
FT carboxy group of one residue with the amino
FT group of the 2-aminoethyl moiety in the next
FT residue"
XX
PN WO9503833-A.
XX
PD 09-FEB-1995.
XX
PF 28-JUL-1994; 94WO-US08465.
XX
PR 29-JUL-1993; 93US-0099098.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Dean NM;
XX
DR WPI; 1995-082040/11.
XX
PT New peptide nucleic acid oligomers specific for protein kinase C
PT isozyme(s) - useful as anti:sense molecules for treating PKC
PT mediated disease, e.g. cancer, psoriasis and inflammation
XX
PS Claim 38; Page 274; 287pp; English.
XX
CC New peptide nucleic acid (PNA) oligomers are provided which (a) consist
CC of naturally occurring nucleobases covalently bound to a polyamide
CC backbone and (b) hybridise to the translation initiation AUG region,
CC coding region, 5' untranslated region (5' UTR) or 3' untranslated region
CC (3' UTR) of PKC-alpha or its isoforms. The PNAs can be used to target
CC RNA and single stranded DNA (ssDNA) to produce antisense-type gene

CC regulation moieties. They inhibit expression of PKC-alpha and its
CC isoforms (including beta, gamma, delta, epsilon, zeta and eta) and so
CC are useful for treating and diagnosing cell proliferation and
CC differentiation processes such as neoplastic, hyperproliferative
CC and inflammatory diseases.
CC PNA oligomers have high affinity for complementary single stranded DNA.
CC They are also able to form triple helices in which a first PNA strand
CC binds with RNA or ssDNA and a second PNA strand binds with the resulting
CC double helix or with the first PNA strand. The PNAs possess no
CC significant charge and are water soluble, which facilitates cellular
CC uptake. Further, since they contain amides of non-biological amino acids,
CC they are biostable and resistant to enzymatic degradation by proteases.
CC The present sequence targets the coding region of PKC-epsilon.
XX
SQ Sequence 20 BP; 4 A; 11 C; 4 G; 1 T; 0 other;

Query Match 60.8%; Score 15.2; DB 16; Length 20;
Best Local Similarity 85.0%; Pred. No. 6.2e+02;
Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1 ccctaggccccaccagtcta 20
||| ||| |||||||||| |
Db 1 ccccagggcccaccagtcca 20

RESULT 4
AAQ84237
ID AAQ84237 standard; DNA; 20 BP.
XX
AC AAQ84237;
XX
DT 21-SEP-1995 (first entry)
XX
DE PKC-epsilon coding region antisense oligo, ISIS #7944.
XX
KW Antisense; protein kinase C; alpha; PKC; beta; gamma; eta; epsilon;
KW zeta; modulation; expression; isozyme; hybridise; 5' UTR; human;
KW 3' untranslated region; translation initiation site; detection;
KW phosphorothioate linkage; 2'-O-methyl modification;
KW 2'-O-propyl modification; ss.
XX
OS Synthetic.
XX
PN WO9502069-A.
XX
PD 19-JAN-1995.
XX
PF 08-JUL-1994; 94WO-US07770.
XX
PR 09-JUL-1993; 93US-0089996.
PR 22-FEB-1994; 94US-0199779.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Bennett CF, Boggs RT, Dean NM;
XX
DR WPI; 1995-066911/09.
XX
PT Oligo:nucleotide(s) hybridisable with Protein Kinase C mRNA or
PT gene - also novel PKC-alpha 3'-UTR sequence, useful for
PT diagnosis and treatment of hyperproliferative disorders.
XX
PS Claim 115; Page 37; 125pp; English.
XX
CC The sequences given in AAQ84236-40 are oligos which are antisense to the
CC protein kinase C-epsilon (PKC-epsilon) cDNA. These antisense molecules
CC may be used in modulating the expression of this particular isozyme of
CC PKC. The oligos of the invention preferably hybridise with the 5'- or
CC 3'-untranslated regions of the PKC gene, or the translation initiation
CC site, or the coding region. These oligos may be used in the detection
CC of the human PKC genes and for treatment of animals with conditions
CC associated with PKC, esp. hyperproliferative diseases such as psoriasis,
CC colorectal cancer, lung cancer, breast or skin cancer. These oligos may
CC contain at least one phosphorothioate linkage and/or at least one of the
CC nucleotides comprises a modification on the 2' position of the sugar,
CC esp. a 2'-O-methyl or a 2'-O-propyl modification.
XX
SQ Sequence 20 BP; 4 A; 11 C; 4 G; 1 T; 0 other;

Query Match 60.8%; Score 15.2; DB 16; Length 20;
Best Local Similarity 85.0%; Pred. No. 6.2e+02;
Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1 ccctaggccccaccagtcta 20
||| ||| |||||||||| |
Db 1 ccccagggcccaccagtcca 20

RESULT 5
AAZ27354
ID AAZ27354 standard; DNA; 20 BP.
XX
AC AAZ27354;
XX
DT 01-DEC-1999 (first entry)
XX
DE Human protein kinase C epsilon antisense oligonucleotide #12.
XX
KW Human; protein kinase C; PKC; diagnosis; antisense oligonucleotide;
KW phosphorothioate; hybridisation; isozyme; target; inflammation;
KW hyperproliferative disorder; psoriasis; tumour; cancer; glioblastoma; ss.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN US5959096-A.
XX
PD 28-SEP-1999.
XX
PF 07-JUN-1995; 95US-0481066.
XX
PR 16-MAR-1992; 92US-0852852.
PR 09-JUL-1993; 93US-0089996.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Bennett CF, Dean N;
XX
DR WPI; 1999-561076/47.
XX
PT Antisense oligonucleotides useful for treatment of hyperproliferative
PT and inflammatory conditions including psoriasis, tumours and cancer -
XX
PS Example 16; Column 23; 56pp; English.
XX
CC The present invention describes antisense oligonucleotides up to 50
CC nucleotides in length which specifically bind mRNA encoding human
CC protein kinase C (PKC). AAZ27266 to AAZ27386 represent human PKC
CC antisense oligonucleotides used in the exemplification of the present
CC invention. The antisense oligonucleotides are useful for the treatment of
CC diseases associated with PKC expression, such as hyperproliferative and
CC inflammatory conditions including psoriasis, tumours and cancer
CC (glioblastoma, bladder, breast, colon and lung cancer).
XX
SQ Sequence 20 BP; 4 A; 11 C; 4 G; 1 T; 0 other;

Query Match 60.8%; Score 15.2; DB 20; Length 20;
Best Local Similarity 85.0%; Pred. No. 6.2e+02;
Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1 ccctaggccccaccagtcta 20
||| ||| |||||||||| |
Db 1 ccccagggcccaccagtcca 20

```
RESULT   6
AAX78612
ID   AAX78612 standard; DNA; 20 BP.
XX
AC   AAX78612;
XX
DT   03-SEP-1999  (first entry)
XX
DE   Human PKC-epsilon oligonucleotide primer ISIS # 7944.
XX
KW   PKC; human; PKC-alpha; primer; protein kinase C; expression modulator;
KW   PKC-beta type I; PKC-beta type II; PKC-gamma; PKC-eta; PKC-delta;
KW   PKC-epsilon; PKC-zeta; anti-inflammatory; cytostatic;antisense targeting;
KW   isozyme; growth control; hyperproliferative disease; colon cancer;
KW   glioblastoma; bladder cancer; inflammatory condition; psoriasis; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   US5922686-A.
XX
PD   13-JUL-1999.
XX
PF   14-JUN-1996;   96US-0664336.
XX
PR   14-JUN-1996;   96US-0664336.
PR   16-MAR-1992;   92US-0852852.
PR   09-JUL-1993;   93US-0089996.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Bennett CF,  Dean N;
XX
DR   WPI; 1999-404471/34.
XX
PT   Oligonucleotides targeted against nucleic acids encoding protein
PT   kinase C
XX
PS   Example 16; Column 63-64; 56pp; English.
XX
CC   This invention describes novel oligonucleotides (AAX78524-X78644) having
CC   up to 50 nucleotides hybridisable with, and able to modulate the
CC   expression of, a nucleic acid encoding protein kinase C and its isozymes
CC   alpha, beta type I, beta type II, gamma, eta, delta, epsilon and zeta.
CC   The oligonucleotides of the invention have anti-inflammatory and
CC   cytostatic activity and are used for antisense targeting to modulate the
CC   expression of PKC or of a particular PKC isozyme or set of isozymes in
CC   cells or tissues. The products of the invention also hybridise with
CC   nucleic acids involved in the modulation of PKC expression, which is
CC   known to be involved growth control in hyperproliferative diseases e.g.
CC   colon cancer, glioblastoma and bladder cancer as well as in inflammatory
CC   conditions e.g. psoriasis. Due to their specificity the oligonucleotides
CC   are able to overcome the problems of toxicity associated with previous
CC   agents designed to modulate PKC expression.
XX
SQ   Sequence 20 BP; 4 A; 11 C; 4 G; 1 T; 0 other;


  Query Match             60.8%;  Score 15.2;  DB 20;  Length 20;
  Best Local Similarity   85.0%;  Pred. No. 6.2e+02;
  Matches   17;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy      1 ccctaggccccaccagtcta 20
          ||| ||| |||||||||| |
Db      1 ccccagggcccaccagtcca 20


RESULT   7
AAX83704
ID   AAX83704 standard; DNA; 20 BP.
XX
AC   AAX83704;
XX
DT   27-AUG-1999  (first entry)
XX
DE   Human protein kinase C antisense oligonucleotide SEQ ID NO:89.
XX
KW   Human; protein kinase C; PKC; antisense oligonucleotide; diagnosis; ss;
KW   hybridisation; cancer; psoriasis; hyperproliferative disease; tumour.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   US5916807-A.
XX
PD   29-JUN-1999.
XX
PF   07-JUN-1995;   95US-0481072.
XX
PR   07-JUN-1995;   95US-0481072.
PR   16-MAR-1992;   92US-0852852.
PR   09-JUL-1993;   93US-0089996.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Bennett CF,  Dean N;
XX
DR   WPI; 1999-403817/34.
XX
PT   New antisense oligonucleotides specific for human protein kinase C
PT   useful for diagnosis and treatment of cancer and psoriasis
XX
PS   Claim 1; Column 21; 54pp; English.
XX
CC   The present invention describes a method of inhibiting the expression of
CC   human protein kinase C (PKC) in cells. The method comprises contacting
CC   the cells with an antisense oligonucleotide which has up to 50
CC   nucleotide units. AAX83633 to AAX83720 represent specifically claimed
CC   antisense oligonucleotides for use in the method of the invention.
CC   The antisense oligonucleotides modulate hybridize to messenger RNA from
CC   the PKC gene which results in modulation of expression of the PKC gene.
CC   This means they can be used for diagnosis, therapeutic or prophylactic
CC   treatment of PKC associated diseases such as cancer and psoriasis, and
CC   as research agents. Abnormal proliferative states in tissue from
CC   patients suspected of having a hyperproliferative disease e.g. cancer,
CC   psoriasis can be diagnosed. Tumours associated with PKC can be
CC   distinguished from tumours which are not PKC associated to allow an
CC   efficacious treatment regime to be used. The antisense oligonucleotides
CC   have specific activity so are able to modulate PKC activity without
CC   producing side effects and with greater effectiveness than observed
CC   from administration of current agents. AAX83721 to AAX83753 represent
CC   other oligonucleotides used in examples from the present invention.
XX
SQ   Sequence 20 BP; 4 A; 11 C; 4 G; 1 T; 0 other;


  Query Match             60.8%;  Score 15.2;  DB 20;  Length 20;
  Best Local Similarity   85.0%;  Pred. No. 6.2e+02;
  Matches   17;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy      1 ccctaggccccaccagtcta 20
          ||| ||| |||||||||| |
Db      1 ccccagggcccaccagtcca 20


RESULT   8
AAX22650
ID   AAX22650 standard; DNA; 20 BP.
XX
AC   AAX22650;
XX
DT   27-MAY-1999  (first entry)
XX
DE   Human protein kinase C antisense oligonucleotide #89.
```

XX
KW Protein kinase C; PKC; human; antisense; primer; inhibitor; treatment;
KW hyperproliferative condition; cancer; colorectal; breast; bladder; lung;
KW brain; glioblastoma multiforme; skin; psoriasis; ss.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN US5885970-A.
XX
PD 23-MAR-1999.
XX
PF 07-JUN-1995; 95US-0488177.
XX
PR 07-JUN-1995; 95US-0488177.
PR 16-MAR-1992; 92US-0852852.
PR 09-JUL-1993; 93US-0089996.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Bennett CF, Dean N;
XX
DR WPI; 1999-228583/19.
XX
PT New human protein kinase C antisense oligonucleotides - useful for
PT treating PKC-related hyperproliferative conditions e.g. cancer and
PT psoriasis
XX
PS Example 16; Column 21; 55pp; English.
XX
CC This invention describes antisense oligonucleotides that specifically
CC bind to human protein kinase C (PKC) mRNA. These oligonucleotides can be
CC used to inhibit PKC mRNA and therefore be used to treat PKC-related
CC hyperproliferative conditions, e.g. cancer, especially colorectal cancer,
CC breast cancer, bladder cancer, lung cancer, or brain cancer (preferably
CC glioblastoma multiforme). The products of the invention may also be used
CC to treat skin cancer and psoriasis.
XX
SQ Sequence 20 BP; 4 A; 11 C; 4 G; 1 T; 0 other;

Query Match 60.8%; Score 15.2; DB 20; Length 20;
Best Local Similarity 85.0%; Pred. No. 6.2e+02;
Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1 ccctaggccccaccagtcta 20
||| ||| |||||||||| |
Db 1 ccccagggcccaccagtcca 20

RESULT 9
AAX19215
ID AAX19215 standard; DNA; 20 BP.
XX
AC AAX19215;
XX
DT 14-MAY-1999 (first entry)
XX
DE Human PKC-epsilon antisense oligonucleotide SEQ ID NO:89.
XX
KW Human; PKC; protein kinase C; diagnosis; antisense oligonucleotide;
KW phosphorothioate linkage; hyperproliferative disease; cancer;
KW psoriasis; tumour; inhibition; ss.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN US5882927-A.
XX
PD 16-MAR-1999.
XX
PF 08-JUN-1995; 95US-0478178.
XX
PR 07-JUN-1995; 95US-0478178.
PR 16-MAR-1992; 92US-0852852.
PR 09-JUL-1993; 93US-0089996.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Bennett CF, Dean N;
XX
DR WPI; 1999-214073/18.
XX
PT New synthetic oligonucleotides inhibiting expression of protein
PT kinase C (PKC)-alpha - useful for treating and diagnosing conditions
PT associated with abnormal PKC expression
XX
PS Example 16; Column 23; 56pp; English.
XX
CC The present invention specifically describes antisense oligonucleotides
CC of up to 50 nucleotides in length which specifically bind human protein
CC kinase C-alpha (PKC-alpha) mRNA. AAX19127 to AAX19247 represent
CC antisense oligonucleotides from the present invention which bind human
CC PKC-alpha, -beta, -gamma, -delta, -epsilon, -zeta and -eta. The
CC antisense oligonucleotides modulate the expression of the PKC gene (i.e.
CC inhibit the PKC gene). The antisense oligonucleotides can be used to
CC diagnose abnormal proliferative states in tissue or other samples from
CC patients suspected of having a hyperproliferative disease e.g cancer or
CC psoriasis. The antisense oligonucleotides can be used to distinguish
CC PKC-associated tumours and to detect and diagnose PKC expression (through
CC the use of 32P labeled antisense oligonucleotides). Radiolabeled
CC antisense oligonucleotides can also be used to perform autoradiography of
CC tissues to determine the localization, distribution and quantitation of
CC PKC expression for research, diagnostic and therapeutic purposes. The use
CC of the antisense oligonucleotides eliminate the side effects associated
CC with prior art methods because it modulates the amount of PKC protein
CC made from the gene rather than inhibiting the enzyme itself.
XX
SQ Sequence 20 BP; 4 A; 11 C; 4 G; 1 T; 0 other;

Query Match 60.8%; Score 15.2; DB 20; Length 20;
Best Local Similarity 85.0%; Pred. No. 6.2e+02;
Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1 ccctaggccccaccagtcta 20
||| ||| |||||||||| |
Db 1 ccccagggcccaccagtcca 20

RESULT 10
AAT53201/c
ID AAT53201 standard; RNA; 36 BP.
XX
AC AAT53201;
XX
DT 02-MAY-1997 (first entry)
XX
DE Mouse ICAM hammerhead ribozyme sequence (nt. position 2378).
XX
KW Enzymatic nucleic acid; ribozyme; trans cleavage; inhibition;
KW gene expression; downregulation; interleukin-5; IL-5; ICAM-1;
KW intercellular adhesion molecule; rel A; tumour necrosis factor;
KW TNF-alpha; respiratory syncytial virus; RSV; bcr-abl; oncogene;
KW translocation; chronic myelogenous leukaemia; CML; cancer;
KW Philadelphia chromosome; inflammation; autoimmune disease;
KW atherosclerosis; myocardial infarction; stroke; restenosis;
KW transplant rejection; rheumatoid arthritis; psoriasis;
KW myocardial ischaemia; Kawasaki disease; septic shock; HIV;
KW human immunodeficiency virus; acquired immune deficiency syndrome;
KW AIDS; ss.
XX
OS Synthetic.
XX
PN WO9523225-A2.
XX

PD 31-AUG-1995.
XX
PF 23-FEB-1995; 95WO-IB00156.
XX
PR 30-JAN-1995; 95US-0380734.
PR 23-FEB-1994; 94US-0201109.
PR 29-MAR-1994; 94US-0218934.
PR 04-APR-1994; 94US-0222795.
PR 07-APR-1994; 94US-0224483.
PR 15-APR-1994; 94US-0227958.
PR 15-APR-1994; 94US-0228041.
PR 18-MAY-1994; 94US-0245736.
PR 06-JUL-1994; 94US-0271280.
PR 15-AUG-1994; 94US-0291932.
PR 16-AUG-1994; 94US-0291433.
PR 17-AUG-1994; 94US-0292620.
PR 19-AUG-1994; 94US-0293520.
PR 02-SEP-1994; 94US-0300000.
PR 08-SEP-1994; 94US-0303039.
PR 23-SEP-1994; 94US-0311486.
PR 23-SEP-1994; 94US-0311749.
PR 28-SEP-1994; 94US-0314397.
PR 03-OCT-1994; 94US-0316771.
PR 07-OCT-1994; 94US-0319492.
PR 11-OCT-1994; 94US-0321993.
PR 04-NOV-1994; 94US-0334847.
PR 10-NOV-1994; 94US-0337608.
PR 28-NOV-1994; 94US-0345516.
PR 16-DEC-1994; 94US-0357577.
PR 23-DEC-1994; 94US-0363233.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Stinchcomb DT, Chowrira B, Direnzo A, Draper KG, Dudycz LW;
PI Grimm S, Karpeisky A, Kisich K, Matulic-Adamic J;
PI McSwiggen JA, Modak A, Pavco P, Beigelman L, Sullivan SM;
PI Sweedler D, Thompson JD, Tracz D, Usman N, Wincott FE;
PI Woolf T;
XX
DR WPI; 1995-351090/45.
XX
PT Ribozymes having modified bases and methods for producing them -
PT for use in inhibiting disease related genes
XX
PS Claim 9; Page 195; 407pp; English.
XX
CC The present sequence is that of a claimed enzymatic nucleic acid
CC (i.e. a ribozyme) which cleaves ICAM-1 mRNA at the nucleotide base
CC position indicated in the DE line.
CC Regions of the mRNA that do not form secondary folding
CC structures and that contain potential hammerhead and hairpin
CC ribozyme cleavage sites were identified by computer analysis.
CC Ribozymes directed against these mRNA sequences were designed and
CC synthesised with modifications that improve their nuclease
CC resistance. The ribozymes cleave the ICAM-1 target sequences and
CC thereby inhibit ICAM-1 expression, making them useful for reducing
CC transplant rejection and alleviating symptoms in patients with
CC rheumatoid arthritis, asthma and other inflammatory disorders.
XX
SQ Sequence 36 BP; 13 A; 9 C; 10 G; 4 U; 0 other;

Query Match 60.8%; Score 15.2; DB 16; Length 36;
Best Local Similarity 85.0%; Pred. No. 6.4e+02;
Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 4 taggccccaccagtctactg 23
| |||| || ||||||||||
Db 20 TCGGCCTCATCAGTCTACTG 1

RESULT 11
AAT52969/c

ID AAT52969 standard; RNA; 36 BP.
XX
AC AAT52969;
XX
DT 21-APR-1997 (first entry)
XX
DE Mouse ICAM hammerhead ribozyme sequence (nt. position 263).
XX
KW Enzymatic nucleic acid; ribozyme; trans cleavage; inhibition;
KW gene expression; downregulation; interleukin-5; IL-5; ICAM-1;
KW intercellular adhesion molecule; rel A; tumour necrosis factor;
KW TNF-alpha; respiratory syncytial virus; RSV; bcr-abl; oncogene;
KW translocation; chronic myelogenous leukaemia; CML; cancer;
KW Philadelphia chromosome; inflammation; autoimmune disease;
KW atherosclerosis; myocardial infarction; stroke; restenosis;
KW transplant rejection; rheumatoid arthritis; psoriasis;
KW myocardial ischaemia; Kawasaki disease; septic shock; HIV;
KW human immunodeficiency virus; acquired immune deficiency syndrome;
KW AIDS; ss.
XX
OS Synthetic.
XX
PN WO9523225-A2.
XX
PD 31-AUG-1995.
XX
PF 23-FEB-1995; 95WO-IB00156.
XX
PR 30-JAN-1995; 95US-0380734.
PR 23-FEB-1994; 94US-0201109.
PR 29-MAR-1994; 94US-0218934.
PR 04-APR-1994; 94US-0222795.
PR 07-APR-1994; 94US-0224483.
PR 15-APR-1994; 94US-0227958.
PR 15-APR-1994; 94US-0228041.
PR 18-MAY-1994; 94US-0245736.
PR 06-JUL-1994; 94US-0271280.
PR 15-AUG-1994; 94US-0291932.
PR 16-AUG-1994; 94US-0291433.
PR 17-AUG-1994; 94US-0292620.
PR 19-AUG-1994; 94US-0293520.
PR 02-SEP-1994; 94US-0300000.
PR 08-SEP-1994; 94US-0303039.
PR 23-SEP-1994; 94US-0311486.
PR 23-SEP-1994; 94US-0311749.
PR 28-SEP-1994; 94US-0314397.
PR 03-OCT-1994; 94US-0316771.
PR 07-OCT-1994; 94US-0319492.
PR 11-OCT-1994; 94US-0321993.
PR 04-NOV-1994; 94US-0334847.
PR 10-NOV-1994; 94US-0337608.
PR 28-NOV-1994; 94US-0345516.
PR 16-DEC-1994; 94US-0357577.
PR 23-DEC-1994; 94US-0363233.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Stinchcomb DT, Chowrira B, Direnzo A, Draper KG, Dudycz LW;
PI Grimm S, Karpeisky A, Kisich K, Matulic-Adamic J;
PI McSwiggen JA, Modak A, Pavco P, Beigelman L, Sullivan SM;
PI Sweedler D, Thompson JD, Tracz D, Usman N, Wincott FE;
PI Woolf T;
XX
DR WPI; 1995-351090/45.
XX
PT Ribozymes having modified bases and methods for producing them -
PT for use in inhibiting disease related genes
XX
PS Claim 9; Page 190; 407pp; English.
XX
CC The present sequence is that of a claimed enzymatic nucleic acid
CC (i.e. a ribozyme) which cleaves ICAM-1 mRNA at the nucleotide base
CC position indicated in the DE line.

CC Regions of the mRNA that do not form secondary folding
CC structures and that contain potential hammerhead and hairpin
CC ribozyme cleavage sites were identified by computer analysis.
CC Ribozymes directed against these mRNA sequences were designed and
CC synthesised with modifications that improve their nuclease
CC resistance. The ribozymes cleave the ICAM-1 target sequences and
CC thereby inhibit ICAM-1 expression, making them useful for reducing
CC transplant rejection and alleviating symptoms in patients with
CC rheumatoid arthritis, asthma and other inflammatory disorders.
XX
SQ Sequence 36 BP; 13 A; 9 C; 10 G; 4 U; 0 other;

Query Match 60.8%; Score 15.2; DB 16; Length 36;
Best Local Similarity 85.0%; Pred. No. 6.4e+02;
Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 4 taggccccaccagtctactg 23
| |||| || ||||||||||
Db 20 TCGGCCTCATCAGTCTACTG 1

RESULT 12
AAH25021/c
ID AAH25021 standard; DNA; 32 BP.
XX
AC AAH25021;
XX
DT 22-AUG-2001 (first entry)
XX
DE PCR primer used to create subtilase 309 variant S99SR+S99T.
XX
KW Subtilase; serine protease; detergent; egg stain; laundry; PCR primer;
KW ss.
XX
OS Synthetic.
OS Bacillus sp.
XX
PN WO200144452-A1.
XX
PD 21-JUN-2001.
XX
PF 01-DEC-2000; 2000WO-DK00660.
XX
PR 15-DEC-1999; 99DK-0001792.
PR 01-MAY-2000; 2000DK-0000708.
PR 13-OCT-2000; 2000DK-0001527.
XX
PA (NOVO) NOVOZYMES AS.
XX
PI Fano TS, Mikkelsen FF;
XX
DR WPI; 2001-390246/41.
XX
PT Use of a subtilase variant comprising at least one additional amino
PT acid residue in its active site loop, for removal of egg stains from
PT laundry or from hard surfaces -
XX
PS Example 1; Page 70; 138pp; English.
XX
CC The specification describes a subtilase variant, which comprises at
CC least one additional amino acid residue in the active site loop region
CC from position 95-103 (BASBPN numbering). Subtilases are serine proteases,
CC which catalyse the hydrolysis of peptide bonds. Variants of subtilases
CC exhibit improved wash performance in a detergent in comparison to its
CC parent enzyme. The subtilase variant is used for the removal of egg
CC stains from laundry or from hard surfaces, and in cleaning or detergent
CC compositions, preferably a laundry and/or dishwash composition. The
CC present sequence represents a PCR primer which was used to produce
CC subtilase variants of the invention.
XX
SQ Sequence 32 BP; 7 A; 7 C; 11 G; 7 T; 0 other;

Query Match 60.0%; Score 15; DB 22; Length 32;
Best Local Similarity 100.0%; Pred. No. 7.8e+02;
Matches 15; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 cctaggccccaccag 16
|||||||||||||||
Db 22 CCTAGGCCCCACCAG 8

RESULT 13
AAH38540/c
ID AAH38540 standard; DNA; 51 BP.
XX
AC AAH38540;
XX
DT 14-AUG-2001 (first entry)
XX
DE Human SNP flanking oligonucleotide SEQ ID 1336.
XX
KW Single nucleotide polymorphism; SNP; single nucleotide primer extension;
KW SNPE; genotyping; agammaglobulinaemia; diabetes insipidus; cancer;
KW Lesch-Nyhan syndrome; muscular dystrophy; familial hypercholesterolaemia;
KW polycystic kidney disease; osteogenesis imperfecta; autoimmune disease;
KW acute intermittent porphyria; rheumatoid arthritis; multiple sclerosis;
KW inflammation; forensic investigation; paternity analysis; ds.
XX
OS Homo sapiens.
XX
PN WO200129262-A2.
XX
PD 26-APR-2001.
XX
PF 13-OCT-2000; 2000WO-US28436.
XX
PR 15-OCT-1999; 99US-0160096.
XX
PA (ORCH-) ORCHID BIOSCIENCES INC.
XX
PI Picoult-Newburg L, Pohl M;
XX
DR WPI; 2001-290930/30.
XX
PT New genotyping oligonucleotide, useful for detecting the presence,
PT absence or identity of single polynucleotide polymorphism in a nucleic
PT acid sample -
XX
PS Claim 1; Page 56; 83pp; English.
XX
CC Sequences AAH37205 - AAH40944 represent PCR primers, single nucleotide
CC primer extension (SNPE) primers, and the sequences of regions flanking
CC sites of single nucleotide polymorphisms SNPs. The present invention
CC includes kits for determining the presence or absence of a SNP, using the
CC oligonucleotides of the invention. The PCR primers are used to amplify a
CC SNP flanking sequence, the SNPE primer is used as a genotyping primer.
CC The oligonucleotides are useful for genotyping a nucleic acid sample by
CC performing a single-nucleotide primer extension reaction. The
CC oligonucleotides are useful for determining the presence, absence or
CC identity of a SNP and for genotyping nucleic acid samples, for e.g. to
CC assess by association analysis the genotype of an individual or group of
CC individuals, having a pathological phenotypic trait suspected of being
CC caused by one or more SNPs. Phenotypic traits include diseases e.g.
CC agammaglobulinaemia, diabetes insipidus, Lesch-Nyhan syndrome, muscular
CC dystrophy, familial hypercholesterolaemia, polycystic kidney disease,
CC osteogenesis imperfecta and acute intermittent porphyria. Phenotypic
CC traits also include symptoms of or susceptibility to multifactorial
CC disease of which a component is or may be genetic such as autoimmune
CC diseases, including, rheumatoid arthritis, multiple sclerosis,
CC inflammation, cancer, nervous system diseases and infection by pathogenic
CC microorganism. The method is also useful in forensic investigations and
CC paternity analysis. The present sequence represents a fragment of human
CC DNA flanking the site of a single nucleotide polymorphism.
XX

```
SQ   Sequence 51 BP; 12 A; 16 C; 14 G; 9 T; 0 other;

  Query Match             60.0%;  Score 15;  DB 22;  Length 51;
  Best Local Similarity   78.3%;  Pred. No. 8e+02;
  Matches   18;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy      2 cctaggccccaccagtctactgc 24
          |||  |||| ||||| || ||||
Db     28 CCTGTGCCCTACCAGGCTGCTGC 6


RESULT  14
AAZ27368
ID   AAZ27368 standard; DNA; 20 BP.
XX
AC   AAZ27368;
XX
DT   01-DEC-1999  (first entry)
XX
DE   Human protein kinase C epsilon antisense oligonucleotide #26.
XX
KW   Human; protein kinase C; PKC; diagnosis; antisense oligonucleotide;
KW   phosphorothioate; hybridisation; isozyme; target; inflammation;
KW   hyperproliferative disorder; psoriasis; tumour; cancer; glioblastoma; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   US5959096-A.
XX
PD   28-SEP-1999.
XX
PF   07-JUN-1995;   95US-0481066.
XX
PR   16-MAR-1992;   92US-0852852.
PR   09-JUL-1993;   93US-0089996.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Bennett CF,  Dean N;
XX
DR   WPI; 1999-561076/47.
XX
PT   Antisense oligonucleotides useful for treatment of hyperproliferative
PT   and inflammatory conditions including psoriasis, tumours and cancer -
XX
PS   Example 16; Column 23; 56pp; English.
XX
CC   The present invention describes antisense oligonucleotides up to 50
CC   nucleotides in length which specifically bind mRNA encoding human
CC   protein kinase C (PKC). AAZ27266 to AAZ27386 represent human PKC
CC   antisense oligonucleotides used in the exemplification of the present
CC   invention. The antisense oligonucleotides are useful for the treatment of
CC   diseases associated with PKC expression, such as hyperproliferative and
CC   inflammatory conditions including psoriasis, tumours and cancer
CC   (glioblastoma, bladder, breast, colon and lung cancer).
XX
SQ   Sequence 20 BP; 3 A; 12 C; 4 G; 1 T; 0 other;

  Query Match             59.2%;  Score 14.8;  DB 20;  Length 20;
  Best Local Similarity   88.9%;  Pred. No. 9.4e+02;
  Matches   16;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy      1 ccctaggccccaccagtc 18
          ||| ||| ||||||||||
Db      2 ccccagggcccaccagtc 19


RESULT  15
AAX78626
ID   AAX78626 standard; DNA; 20 BP.
XX
AC   AAX78626;
XX
DT   03-SEP-1999  (first entry)
XX
DE   Human PKC-epsilon oligonucleotide primer ISIS H.
XX
KW   PKC; human; PKC-alpha; primer; protein kinase C; expression modulator;
KW   PKC-beta type I; PKC-beta type II; PKC-gamma; PKC-eta; PKC-delta;
KW   PKC-epsilon; PKC-zeta; anti-inflammatory; cytostatic;antisense targeting;
KW   isozyme; growth control; hyperproliferative disease; colon cancer;
KW   glioblastoma; bladder cancer; inflammatory condition; psoriasis; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   US5922686-A.
XX
PD   13-JUL-1999.
XX
PF   14-JUN-1996;   96US-0664336.
XX
PR   14-JUN-1996;   96US-0664336.
PR   16-MAR-1992;   92US-0852852.
PR   09-JUL-1993;   93US-0089996.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Bennett CF,  Dean N;
XX
DR   WPI; 1999-404471/34.
XX
PT   Oligonucleotides targeted against nucleic acids encoding protein
PT   kinase C
XX
PS   Example 16; Column 69-70; 56pp; English.
XX
CC   This invention describes novel oligonucleotides (AAX78524-X78644) having
CC   up to 50 nucleotides hybridisable with, and able to modulate the
CC   expression of, a nucleic acid encoding protein kinase C and its isozymes
CC   alpha, beta type I, beta type II, gamma, eta, delta, epsilon and zeta.
CC   The oligonucleotides of the invention have anti-inflammatory and
CC   cytostatic activity and are used for antisense targeting to modulate the
CC   expression of PKC or of a particular PKC isozyme or set of isozymes in
CC   cells or tissues. The products of the invention also hybridise with
CC   nucleic acids involved in the modulation of PKC expression, which is
CC   known to be involved growth control in hyperproliferative diseases e.g.
CC   colon cancer, glioblastoma and bladder cancer as well as in inflammatory
CC   conditions e.g. psoriasis. Due to their specificity the oligonucleotides
CC   are able to overcome the problems of toxicity associated with previous
CC   agents designed to modulate PKC expression.
XX
SQ   Sequence 20 BP; 3 A; 12 C; 4 G; 1 T; 0 other;

  Query Match             59.2%;  Score 14.8;  DB 20;  Length 20;
  Best Local Similarity   88.9%;  Pred. No. 9.4e+02;
  Matches   16;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy      1 ccctaggccccaccagtc 18
          ||| ||| ||||||||||
Db      2 ccccagggcccaccagtc 19


Search completed: March  9, 2002, 01:06:58
Job time: 11944 sec
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